

ABSTRACT OF THE DISCLOSURE

A washing machine includes an out-of-balance correction system having a plurality of injector valves each having an associated solenoid element. Each of the injector valves is adapted to selectively inject a
5 balancing fluid into a pocket carried by an inner tub to offset the out-of-balance condition. The valves are rapidly and repeatedly cycled to achieve a timed dispensing of the balancing fluid. To reduce the effects of the repeated cycling on the solenoid, a cushion element is mounted to a rear portion of a plunger carried within a solenoid coil. Additionally, a
10 texturing process is applied to a pole piece arranged within the solenoid coil to establish a controlled leakage of air from a central portion of the cushion element once the plunger contacts the pole piece. With this arrangement, the service life of the injector valve is increased and proper control and timing of the injector valve is assured.